Application No.: 10/648,035 Docket No.: 15115/087001

AMENDMENTS TO THE CLAIMS (CLEAN VERSION)

Please amend the claims as follows.

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1. (Currently Amended) A method for detecting an object in a detection region, comprising:

placing a reflector in the detection region;

radiating the detection region with a radio wave transmitted from a transmission antenna;

receiving a reflected wave reflected by the reflector using a reception antenna; calculating a position of the reflector based on the reflected wave; and storing the calculated position as the detection region.

2. (Currently Amended) A method for detecting an object in a detection region, comprising:

placing a transmitter in the detection region;

receiving a radio wave from the transmitter using a reception antenna;

calculating a position of the transmitter based on the radio wave from the transmitter; and

storing the calculated position as the detection region.

3. (Currently Amended) The method of claim 2, further comprising:

inputting a setting value;

transmitting the inputted setting value using the transmitter;

determining the detection region based on the setting value; and

storing the detection region.

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4. (Currently Amended) A method for detecting an object in a detection region, comprising:

placing a setting apparatus comprising a reflector and a transmitter in the detection region;

receiving a radio wave from the setting apparatus using a reception antenna;

radiating the detection region with a radio wave transmitted from a transmission antenna,

receiving a reflected wave reflected by the setting apparatus using the reception antenna;

calculating a position of the setting apparatus based on the radio wave from the setting apparatus and the reflected wave; and

storing the calculated position as the detection region.

5. (Currently Amended) A method for confirming a position of an object in a detection region, comprising;

placing a reflector in the detection region;

radiating the detection region with a radio wave transmitted from a transmission antenna;

receiving a reflected wave reflected by the reflector using a reception antenna; calculating a position of the reflector based on the reflection wave; comparing the calculated position with a stored detection region; and

outputting a detection signal when the calculated position is in the detection region.

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6. (Currently Amended) A method for confirming a position of an object in a detection region, comprising;

placing a transmitter in the detection region;

transmitting a radio wave from the transmitter; and

- comparing a position of the transmitter that is calculated based on the radio wave with a stored detection region; and
- outputting a detection signal when the position of the transmitter is in the detection region.
- 7. (Currently Amended) An intruding object detecting apparatus for detecting an object within a detection region, comprising:
 - a transmission antenna configured to radiate a radio wave;
 - a reception antenna configured to receive a reflected wave;
 - scanning means configured to alter directions of the transmission antenna and the reception antenna;
 - calculation means configured to calculate a position of the object based on the reflection wave received by the reception antenna and a direction thereof obtained by the scanning means;
 - storage means configured to store a predetermined setting value that corresponds to the detection region; and
 - comparing means configured to compare the position of the object specified by the calculation means and the detection region specified by the setting value stored in the storage means.
- 8. (Currently Amended) The intruding object detecting apparatus of claim 7, wherein the setting value is set in advance based on a reflector that reflects the radio wave radiated from a transmission antenna of the intruding object detecting apparatus in an almost incident direction of the radio wave with an opposite sign.

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9. (Currently Amended) The intruding object detecting apparatus of claim 7, wherein the setting value is set in advance based on a transmitter that transmits the radio wave having a frequency capable of being received by a reception antenna of the intruding object detecting apparatus.

10. (Currently Amended) The intruding object detecting apparatus of claim 9, further comprising:

input means configured to input the setting value; and transmitting means configured to transmit the setting value.

- 11. (Currently Amended) The intruding object detecting apparatus of claim 7, wherein the setting value is set in advance based on a setting apparatus comprising: comprising:
 - a reflector configured to reflect the radio wave from the transmission antenna in an almost incident direction with an opposite sign; and
 - a transmitter configured to transmit the reflected radio wave with a frequency that is receivable by the reception antenna.